

The impact of e-commerce adoption on relational quality in Iranian travel agency-supplier selection

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ABSTRACT

Today, e-business has turned into an important business performance which can bring substantial added value for the company and other sectors of value chain. The main role of e-business is in supply chain management, where there is a high potential for improving business processes by adopting novel technologies which are based on the e-business philosophy. This study aims to describe the effect of applying e-business to supply chain management (as the most important part with a significant impact on the increase of the company's efficiency). Therefore, seven hypotheses were devised. For field data collection, a questionnaire with 23 questions was designed and distributed in the research's statistical population. This statistical population consists of Tehran's travel agencies' managers. Further, completed questionnaires were analyzed using the Student's t-distribution statistical technique and LISREL software. All the proposed hypotheses were approved and after results analysis, suggestions were presented in regard to the research results.

KEYWORDS: e-business, Supply Chain Management, Travel agency

INTRODUCTION

The use of electronic communication devices in the past 20 years, which has been considered as a key tool, is one of the main e-business tools (Cagalino et al., 2003). E-business has evolved into an important part of the business performance which can bring substantial added value to companies and other value chain sectors (Michelino et al., 2008). In most cases, e-business is described as simply selling and purchasing goods or online e-services. Baoline (2004) and Fraser (2000) believe that e-business could be put forward as the new trade philosophy which is able to alter the traditional performance principles (Barsauskas et al., 2007). This type of business, not only performs transactional activities, but it is also effective in keeping and maintaining customers. The studies show that an increase of 5% for customer cares that leads to an increase in profit by 25 to 95 percent. This shows the relationship between customer care and increase in profit, the importance of loyalty and customer maintenance (Maswera et al., 2008). Modern business environment has made the companies and executives try to cut their costs more in order to provide the consumers with cheaper (yet high quality) products. One of the most important expenditures allocated in every company is the one allocated to the supply chain. This article aims to study the impact of applying e-business to the supply chain of tourism service companies in the form of travel agencies. Tourism industry has been chosen, on the other hand, due to its high potential for Income-creation. In the modern age tourism has turned into the greatest industry in the world. This industry constitutes 11% of the world's gross domestic product (GDP) and has 200 million practitioners which is equivalent to one person from each 12 jobs (Rajaiee et al., 2011). While having a four-season climate as well as an ancient civilization which has made lots of tourist attractions, unfortunately, Iran has failed to earn income from this industry as much as it should. It is hoped that the survey results would be helpful in this regard. The results have, on the other hand, shown that the establishment of e-supply chain in the data-driven industries such as travel agencies, due to the high speed data transference, can highly contribute to the success and competitiveness of agencies. It should be noted that travel agencies providers in Iran are divided into two categories. The first category contains hotels which provide rooms for the agencies which sell multi-daytour packages; and the second category contains the airlines which are responsible for providing tickets. There are several airlines in Iran including Caspian Airlines, Mahan Air, Iran Air, Zagros, Homa, Iranian Naft Airlines, Kish Air, etc.

Therefore, this article is trying to achieve these aims:

1. Analysis of e-business adoption level in Iranian travel agencies.
2. Analysis of the impact of industry and customer IT pressure on e-business adoption in Iranian travel agencies.
3. A study of the impact of e-business on the improvement of the relationships quality between travel agencies and providers

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2- RESEARCH LITERATURE

Researchers such as Watson *et al.* and Reddy *et al.* have defined e-business as follows:

Exchanging data files, having a website, using the companies' websites or online purchasing or selling goods and services (Fillis *et al.*, 2004). In another definition, e-business has been described as the process of exchange of goods, data and services through computer networks (e.g. Internet) (Da Silveira, 2003).

The study of the economic literature suggests that e-business creates added value for three groups:

- 1) Companies = e-business contributes to trading and other activities. E-business, has a direct impact on the corporate's expenditures and business efficiency (Rahman, 2004). Lewis (2001) noted that e-business makes it possible to supply the corporate's products and services to the international markets more easily, shorten the production cycle, improve information dissemination, create new informational products and find new channels, etc. (Barsauskas *et al.*, 2007).
- 2) Suppliers = Biro & Messnarz (2000) stated that the use of modern technologies (such as e-business), facilitates communication with the company's partners (Breen & Crawford, 2005). New technologies reduce communication costs, consequently, the communications will become more urgent, and more information with higher quality will be transferred (compared to traditional forms of communications-fax, mail or telephone) (Croom, 2005).
- 3) Consumers = the company's lower expenditure, has a positive impact on the final price of the company's products and services. It also facilitates searching process, ordering and receiving goods for consumers (in case the goods are in digital form) (Barsauskas *et al.*, 2007).

Supply chain management is a process which varies during its implementation due to the occurred circumstances, and should be continuously controlled and improved according to the costs. Indeed, supply chain management refers to management of a variety of processes such as customer relationship management, customer service management, demand management, order management, production and raw materials management and purchase management (Matopoulos *et al.*, 2009).

E-business is important for relational quality between supplier and buyer and this importance is resulted from the increased need to integrate activities and the information flows as well as optimization of the processes at all levels of the company (Law *et al.*, 2004). Brookes & Wahhaj (2000), Coppel (2000), Biro & Messnarz (2000), Deise *et al.* (2000) and Fensel & Bussler (2002) believe that supply chain management is the most important place where e-business can make a great positive change in business efficiency. It is clear that the best result from the effect of e-business on business efficiency will be achieved in those businesses in which the information and data transference speed have a huge impact on business success such as electronic or tourism industries (Yen & OS Ng, 2003).

E-business and the Internet as a platform to implement it, affect the economic efficiency of supply chain in five ways:

- 1 – Reduction of the cost of distribution and transactions
- 2 – Providing more information for buyers and sellers
- 3 – Increase of the customers' options and their access to suppliers
- 4 – Reduction of the gaps and time intervals.

A study of the effects of e-business adoption on business efficiency in various industries shows that advantages of using e-business in business often depends on the factor of data.

In the modern economy, data have found new meanings and have turned into expensive and very useful products (Law *et al.*, 2004). Information is also a major factor in the supply chain. Scientists such as Brooks and Wash, Couple, Bairo and Meisnarse, Dice *et al.*, and Fensel and Basler believe that the companies which perform their supply chain management electronically can save costs in four parts. These four parts are influenced by the efficient growth of information receiving and transmission (Barsauskas *et al.*, 2007):

- 1) To reduce the cost of the ordering process of tickets and rooms, cost saving in the order process is the first positive factor in e-business adoption. The order process costs include arrangement and delivery of the documents; correspondence, saving the documents and costs of job performance. E-business at this stage can have the following advantages:

- Using information technology reduces the correspondence costs. Orders can be placed through electronic channels (usually the Internet). In this case, the cost of placing order (Purchase Order) is equivalent to the cost of using the Internet which is very lower than the cost of mail or telephone.
- Using computers expedites the completion of the purchase order forms. Standard computer software allows the fixed-order models to be prepared so that there would be no need to complete the purchase order form again for further purchase.
- The supplier would be provided with electronic documents in a short time (several seconds). Therefore, using electronic transmission, purchase order submission cycle will be removed from the purchase cycle; which has a large impact on supply management.
- The possibility of acceleration of the completion of purchase order documents and information transmission and purchase order directly influences the work severity and hardness. Therefore, the corporates (travel agencies) need fewer work forces in the supply products or services (Ibid).

- 2) The second factor is that due to the higher and faster information flow made by adopting electronic channels, the suppliers (such as hotels which provide rooms for the agencies) will be selected in a faster and cheaper way. The higher

information flow allows the companies to correspond not only with the nearest and the most accessible supply brokers(hotels), but also with those suppliers that are further away (Croom, 2005).

3) To stimulate the competition between suppliers(contains hotels and the airlines) which can have direct and positive effects (such as lower prices of rooms in the price competition between rivals) and indirect effects (such as lower prices of rooms supplier and higher efficiency of the supplier) (Barsauskas et al., 2007).

The economic theories and modern businesses show that there is more than one broker in the traditional supply chain. This situation leads to higher prices for the end user, because each broker is only looking for their own financial interests. Marius and Holmstrom (2000) argued that in the electronic environment, the end user can select the supplier (contains hotels and the airlines) more easily and in some cases, they can directly deal with them (Nusair et al., 2008).

From this perspective, it will become clear that in the electronic environment, it is possible to eliminate the brokers. Viertel (2001) believes that there is mutual interest in these conditions: the supplier can determine a higher price (close to the retail price) and the buyer can also buy the product at a lower price (close to the wholesale price). This means that the benefits of intermediation can be distributed between the supplier and the buyer(Travel agency). According to the theories presented and studies conducted on the impact of e-business on business efficiency, it can be claimed that e-business adoption directly changes the relational quality in travel agency-supplier selection, affects the structure of business cost and increases business efficiency by reducing the travel agency's expenditures (Barsauskas et al., 2007).

After examining and comparing the results of supplying tickets and rooms the travel agency's after applying e-business with that when e-business was not used, the following items were identified:

- 1) E-business reduces the amount of communications through telephone, fax or mail. This communication leads to reduction of costs of communications (Jonsson&Gustavsson, 2008).
- 2) It reduces the number of supply department managers and commercial managers as a result of which the need for commercial managers will reduce. That is because the Commercial (business) managers who were required only to maintain e-business system and communicate with the buyers, cannot use e-business system. Then, the tasks of supply department managers also change and they spend the main part of their work time to search for new suppliers(new hotels and new airlines company) (Barsauskas et al., 2007).
- 3) It increases the quantity of useful information about the company and its customers. In e-business system, the amount of data collected is several times more than the information which was collected previously by employees and customers.
- 4) It reduces the delivery time. If the total delivery time before e-business adoption took at least a week, this amount will be reduced by 2 days after its application.
- 5) The only negative effects of e-business adoption in travel agency's on business efficiency are the costs of e-business system maintenance. These costs can be classified into tow categories:
 - Re-reprocessing costs (which are very important due to rapid changes in information technology)
 - and software licensing costs (ibid)

The role of electronic relationship with suppliers in travel agencies

Today's world is the world of rapid and widespread developments in all aspects. These developments are also determined in tourism industry, which is the largest service industry. Undoubtedly, all countries in the world have intense competition to use the economic social, cultural advantages, and ... to receive a greater share of income and improve the employment level caused by optimizing this service industry in their respective countries(Rajaiee et al,2011) .

The way of performing activities in tourism industry has changed due to the development of information technology. The rapid growth of electronic agencies supports this claim (Iuan Ho and Lee, 2007). Smith and Jenner (1998) suggested that travel goods and services are highly suitable for online sales, because they possess the necessary characteristics for the electronic environment (Heung, 2003). The conducted studies show that e-business, not only changes the approaches applied by businesses, but it also dramatically increases the revenue of the organizations, especially those working in the tourism and travel industry. The studies conducted by the Markosen (2003) and (2005) were regarding how to distribute online tour market in Europe and America. The studies show that when tourism and online tour industry market was possessed by America by 27 billion dollars, Britain had just started working on this issue in Europe (Andreu et al, 2009).

According to the data collected (2004) it was determined that 64 million Americans are looking for agencies that provide online services and 35% of Canadians are looking for web based agencies. In 2002, the costs spent on tourism were over 22.7 billion U.S dollars and this figure will reach \$ 50 billion dollars in 2007 (Bigne et al, 2008).

Over the last few years, the importance of IT has dramatically increased in tourism, especially in the web environment and this trend will certainly continue. However, since the technology is available almost for everyone, it does not necessarily bring about a competitive advantage. Accordingly, advanced and diverse technologies related to information and telecommunications are used in the worldwide tourism sector. These technologies are used to develop tourism product, marketing, training the personnel of tourism sector and... . In addition, these technologies are essential in order to identify the changing demands of tourism products. One of the unique characteristics of tourism products is the need for them in cases where they play the role of the so-called tourism brokers. These brokers are, in fact, travel agencies, tour operators, smart booking agents, and... . Due to the intangible nature of tourism products, these cases are

very important. Travel agencies perform their tasks as intermediaries, through computers and computer reservation systems. Global distribution systems are systems which distribute reservation services and sales information services. Unlike computer reservation systems which can only be used at hotels and airlines, global distribution systems offer facilities to promote tourism business such as visa issuance and customs clearance and ... (Ibid).

The Internet is one of the most important launchers of service entrepreneurs of agencies to provide services and communicating with its target customers. The number of the websites of agencies has grown rapidly during the last decade, and competition has strongly focused on this issue. An electronic service company should see what the customers see, understand their needs and design an online service system which can meet the customers' expectations (Iuan Ho and Lee, 2007).

Hypotheses

The products of travel agencies (including tickets, the quality of flights, speed in responding to the customer, providing a quite residence proportionate to the customer's demands and etc.) are considered public services and are not actually tangible products. The prominent feature of services is also its untouchable and non-storable nature (Weaver & Lawton, 2007).

For example, if you're a car manufacturer, and suddenly, the price of raw material (steel) in your factory decreases for some reasons, you can buy a huge amount of this material you and keep them in stock, but this is not possible in the service industries. It is not possible for a travel agency with an extraordinary price discount, which is requested to buy tickets by one of airlines for the final week in summer, to buy lots of tickets and sell them in the days other than that of a certain week. Then, the main feature of service and information-oriented products is their non-storable nature. Therefore, the increase in the speed of notifying customers can increase their likelihood of purchase (Wu et al., 2003, 2007; Wu & Lee, 2005)

Imagine that an agency intends to notify their clients of its exceptional price discount in the last week of summer traditionally and by advertising in magazines and on television, comparing with the agency that puts the above advertisement on their website within a few seconds and sends it to its main customers by using electronic communications. In which case there is more chance of selling?

Further progress in electronic communications creates many opportunities for the agency, while providing the customers with a great power (such as online purchase of airline tickets, online reservation of hotel rooms and ...). For example, one of the advantages of using the Internet in the travel agency is that the use of information technology enables the agency to create and maintain lasting relationships with customers and presents their needed services in the shortest possible time which increases the perceived benefits to the customer and as a result, the purchase level of the customer will increase (Min & Galle, 2003). Thus, our first hypothesis will be developed as follows:

H1. The adoption of online communication between the travel agency and its supplier will have a positive influence on the adoption of e-procurement.

Adopting a new technology or an innovation by a company does not only depend on the factors within the company, but external factors also affect the decision (Srinivasan et al., 2002; Wu et al., 2003, 2007). Accordingly, this research focuses on two external forces affecting the adoption of e-business:

- 1- The pressure from competitors (industry pressure)
- 2 - The pressure from customers (customer pressure)

A travel agency which does not want to fall behind its other competitors in today's competitive environment has to improve its business and to take innovative actions constantly (Wu & Lee, 2005).

When a travel agency realizes most of its rivals have an electronic supply system and can contact their suppliers around the world and as well as their customers through electronic communications in the shortest possible time, it will have to accept this new system (e-business) not to fall behind its rivals. The pressure from the competitors is called industry pressure. Therefore, our second hypothesis will be developed as follows:

H2a. The greater the perceived normative pressure (i.e., industry IT pressure), the greater the implementation of the Internet as a communication tool

H2b. The greater the perceived normative pressure (i.e., industry IT pressure), the greater the adoption of e-procurement
In addition to industry pressure, another force that makes the agency adopt new technologies such as e-business is the customers' demands. The customers, who are able to perform online (electronic) activities, are the main pioneers of electronic communication (Buhalis & Licata, 2002; Wu et al., 2003).

If travel agencies do not use e-business to contact with their suppliers and customers, they will not be able to offer some services (such as online ticket sales, online booking of tickets, etc.) to their customers. Therefore, their clients may go to other agencies which offer these services and the agency lose its own customers. This reduces the agency's power of competitiveness (Jeong, Oh, & Gregoire, 2003).

Thus, the customers who want to contact with the agency electronically, have imposed a pressure on the agency from outside and the agency has to adopt this new technology to keep its customers satisfied and meet their demands. The pressure from the customers is called customer pressure. Accordingly, our third hypothesis will be developed as follows:

H3. The more power the customers have (i.e., customer IT pressure), the greater the intensity of IT adoption in the area of communications

Bairo and Meisnarse (2000) believe that applying new technologies such as e-business can facilitate contact with business partners and greatly reduces the cost of establishing this contact. In comparison with traditional means of communication such as telephone, fax, mail and etc., electronic communications can deliver data with a higher quality and speed.

In other words, today's tourists want to achieve travel information as well as its related information in the shortest possible time and with the highest quality in order to make a right decision (Law et al., 2004).

The information systems researchers suggest that the establishment of electronic business or e-business systems as a technological innovation allows the companies to establish a high quality bilateral relationship with its trading partners (e.g. suppliers). Establishment of electronic relationships with suppliers in the form of travel agencies can reduce the time it takes to establish these relationships and enhance their quality (Patterson et al, 2003). Commitment and trust are two main elements of the quality of communication (Cheng et al, 2008).

Commitment can be defined as an implicit or explicit pledge of relational continuity between buyers and sellers

Willingness to continue the commitment between two partners creates continuous value and benefits for both business partners (e.g. commercial agency and its supplier) (Lacey & Morgan, 2009).

Trust, on the other hand, refers to the degree to which one partner can depend on another to protect his/her business interests (Andreu et al., 2009).

According to many researchers of relationship marketing (e.g. Morgan and Hunt, 1994; Tellefsen and Thomas, 2005), trust is considered an introduction and starting point to commitment. In this regard, Srinivasan also believes that the use of electronic communications has a positive effect on the agency's level of trust in its supplier (Srinivasan et al., 2002). Therefore, our fourth hypothesis will be developed as follows:

H4a. The greater the intensity of IT adoption in the area of communications, the greater the degree of trust between the travel agency and its supplier

H4b. The greater the adoption of e-procurement, the greater the degree of trust between the travel agency and its supplier
Kinard and Capella believe that the more the trust increases between two trading partners, the more the level of commitment between them will increase to maintain their business relationship for a long time. When the trust is created between companies, the companies learn to be committed to each other and to try together to achieve their goals to gain better results through the synergy (Kinard&Capella, 2006). In this regard, Lacey and Morgan also argue that trust is the starting point of commitment and can lead to the emergence of commitment in the relationships between business partners (Lacey & Morgan, 2009). Thus, it is expected that trust can have a direct and positive impact on the level of commitment. Our fifth hypothesis will be developed as follows:

H5. The greater the trust of the travel agency with its supplier, the greater its commitment to this supplier

According to the theory of reciprocity, any act done by a business partner, will be responded in the same way and in another form by the other partner. If one of the commercial sides shapes their own business relationships based on trust, the other business side will take the same measure. Kinard and Capella believe that the more the trust increases between two trading partners, the more the level of commitment between them will increase to maintain their business relationship for a long time. When the trust is created between companies, the companies learn to be committed to each other and to try together to achieve their goals to gain better results through the synergy (Kinard&Capella, 2006). Therefore, trust is an integral part of business relationships and results from the commercial activities between business partners. These consequences can lead to the perceived reciprocity as the company's belief. It means that a company thinks that it should take positive measures to maintain business relationships with other companies and to avoid taking unexpected measures that may have negative and dangerous consequences for the company and its business relationships with its business partner (Lancastre&Lages, 2006). Our sixth hypothesis will be developed as follows:

H6. There is a positive relationship between trust and perceived reciprocity in the travel agency-supplier relationship

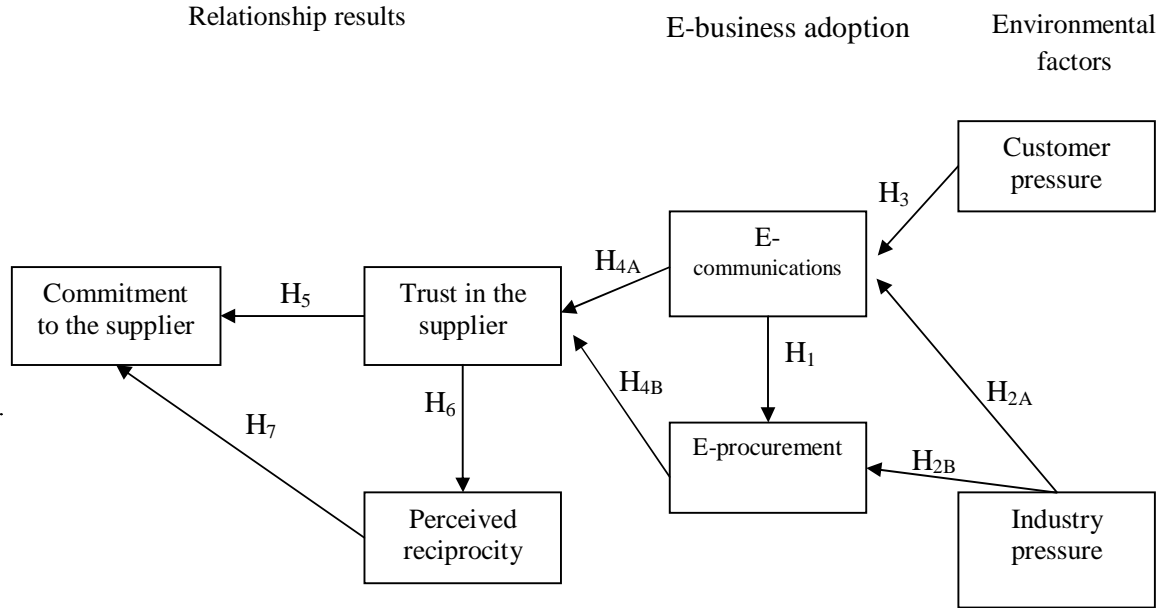
According to the theory of perceived reciprocity, two partners try to consult with one another and to be consistent in setting target for their business and determining business strategy in order to avoid doing unexpected things that may damage their business relationships. Level of this consistency will have a dramatic effect on the quality of relationship between the two partners (Jap & Ganesan, 2000).

Stanko believes that in a buyer-seller relationship with a high level of perceived reciprocity, the fear of opportunistic behavior from a business partner will be reduced and the two partners can actually trust each other. This leads to the emergence and increase of the level of commitment (Stanko et al., 2007).

Accordingly, the seventh hypothesis will be developed as follows:

H7. Perceived reciprocity will have a positive impact on the travel agent's commitment to its supplier

The relationships between hypotheses are shown in figure 1.



6- The scope of research

This study has been conducted in the travel agencies in Tehran in spring 2010.

7- Research methodology

The present study is an applied research in terms of aim and in terms of data collection approach (research methodology) is a non-experimental (field) approach, and more accurately, a causal method, structural equation model, which has been conducted in Lisrel software environment.

8- Statistical community and sample size

The statistical community of this study is all airlines in Tehran. The number of agencies in Tehran is 404. In fact, our study seeks to examine the effects of the use of e-business on the quality of the relationship between the travel agency and its supplier.

Generally, in the model examined using structural equation technique, selecting a sample size above 200 is sufficient (Barrett, 2007; Joreskog, 2004). Therefore, a classification sampling method proportionate to the community has been used to select samples. In proportional classification sampling, the samples are randomly selected from each sampling unit proportional to the unit size. One of the advantages of this sampling method is guaranteeing its representation on the basis of classification of units. For this purpose, Tehran is divided into 5 zones of North, South, East, West and Central, and the number of agencies in each zone is shown in table 1.

Table 1: The number of agencies in Tehran separated by five zones

Zone	The number of agencies in the zone	Frequency percentage
North	73	0.18
South	38	0.095
East	81	0.20
West	69	0.17
Central	143	0.355
Total	404	1

Then, the number of agencies in any zone which should be given questionnaire has been calculated according to the frequency of each zone and using the following relation. The results of the calculations are shown in table 2.

$$N_i = (240/404) \times n_i$$

i = Zones of Tehran (North, South, East, West and Central)

N_i = The number of agencies in zone i which should be given questionnaire.

n_i = The number of agencies in zone i

Table 2 calculation of the number of agencies in each zone of Tehran

North	43= $73 \times 240/404$
South	23= $38 \times 240/404$
East	48= $81 \times 240/404$
West	41= $69 \times 240/404$
Center	85= $143 \times 240/404$
Total	240

After selection of the number of samples in each zone of Tehran, the agencies in each zone were selected using simple random sampling. According to the calculations in this study, using proportional classification sampling method, 240 questionnaires were distributed 226 of which were usable; therefore, the rate of return of questionnaires is calculated 0.94.

9- Methods and tools for data collection

In this research, data is collected through field approach. That is, the obtained data was collected referring to the airlines in Tehran. Data collection tool in this study is questionnaire, which is the most common data collection tool in the field research. The questionnaire in this study includes 23 questions 4 questions of which are related to the factor of customer pressure, the next 5 questions are related to the industry pressure, the three next questions are related to the factor of electronic communications, 2 questions are related to electronic procurement, 3 questions about the commitment to the supplier, 4 questions are related to the variable of trust and the 2 last questions are related to the variable of perceived reciprocity. They are all constructed from totally disagree to totally agree (as five units) based on five-option Likert spectrum and their numerical value was selected from 1 to 5. Cronbach's alpha coefficient was used to determine the reliability of this questionnaire. For this purpose, first, 40 questionnaires were distributed and their alpha was calculated using SPSS software after they were collected. The value of this coefficient for the questionnaire of this study was 0.87, which indicates its reliability. The value of Cronbach's alpha is separately calculated for all variables, which is shown in table 3. The content validity is used to determine the validity of research. To determine the validity of the collection tool in this study, the designed questionnaire was given to twenty e-business experts and 10 were managers of travel agencies. According to them, the respective questionnaire is able to identify and obtain the necessary data; thus, the validity of the study tools has been confirmed. Table 3 shows the resources used to extract the research questionnaire.

Table 3 The resources used to extract the research questionnaire.

Variables	Respective question	Cronbach's alpha	Applied resources
Customer pressure	1-4	0.805	Wu et al., 2003; Wu & Lee, 2005
Industry pressure	5-9	0.828	Wu et al., 2003; Wu & Lee, 2005
Electronic communications	10-12	0.887	Wu et al., 2003
Electronic procurement	13-14	0.816	Wu et al., 2003
Commitment to the supplier	15-17	0.865	Anderson & Weitz, 1992; Ganesan, 1994; Walter, Muller, Helfert, & Ritter, 2003
Trust	18-21	0.851	Walter et al., 2003
Perceived reciprocity	22-23	0.835	Anderson & Weitz, 1992; Walter et al, 2003

10- Fitness of research model

Fitness is the suitability and adequacy of data for the investigated model, which means if fit indices indicate the fitness of the model; the data had been suitable and adequate for analysis and conclusion of relationships in the model. In other words, fitness of the model determines the degree which supports the sample variance-covariance data of the structural equation model (Barrett, 2007). Therefore, we examined fit indices. The calculated values of these indices are given in table 4 and indicate a relatively good fitness of the model. Table 5 illustrates the discriminant validity of the constructs, with correlation among constructs and the square root of AVE on the diagonal.

Table 4-Fit indicators

χ^2/df	736.49
RMSEA	0.045
NFI	0.81
NNFI	0.83
CFI	0.85
GFI	0.87
AGFI	0.82
P<0.05d.f= 220	

Table 5-Discriminant validity assessment

Construct	ECOM	EPRO	TRUST	PERECI	COMM	CUPR	INPR
ECOM	1.00						
EPRO	0.82	1.00					
TRUST	0.89	0.98	1.00				
PERECI	0.77	0.84	0.86	1.00			
COMM	0.75	0.82	0.84	0.85	1.00		
CUPR	0.86	0.74	0.80	0.68	0.67	1.00	
INPR	0.85	0.77	0.82	0.70	0.68	0.89	1.00

11- The method to analyze data and results

In this study, the obtained information was analyzed using the inferential statistical method, and the statistical technique of structural equation modeling (analysis of the confirmed path) and confirmatory factor analysis was used

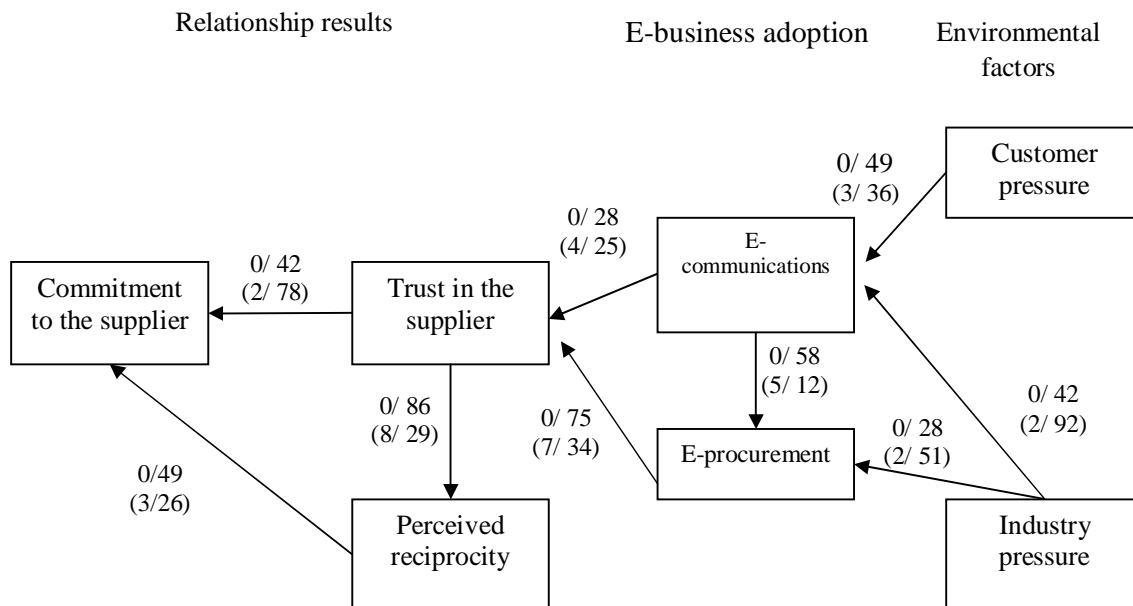
through LISREL 8.50 software. After Confirmatory Factor Analysis and ensuring about significance of the coefficients between latent variables (factor loads) and the measured variables (items of the questionnaire) as well as the confidence in the model fitness, research hypotheses will be tested. That is, the significance of latent variable path coefficients of will be examined using T-Student test. Since the confidence level of 0.95 or the error level of 0.05 is considered in this research, the positive path coefficients are characterized by the above significant 1.96 value of the statistic t and their associated research hypothesis will be confirmed. Table 6 shows Communication tools used by the travel agency to interact with the travel supplier. The results from the confirmation or rejection of the hypotheses are presented in table 7 and figure 2.

Table 6- Communication tools used by the travel agency

Communication tools	Mean	Standard deviation
Telephone	4. 73	1. 17
Paper-based catalog	4. 18	1. 12
Travel supplier website	4. 14	1. 31
Fax	4. 07	1. 06
E-mail	3. 78	1. 19
Personal visits	2.85	1. 32
Intranet	2. 68	1. 58

Table 7: Results of research hypotheses

Hypothesis	The studied variables	Estimated path coefficients	Statistic t	R ²	Results
H 1	e-communications, e- procurement	0.58	5.12	0.82	Confirmed
H 2A	Industry pressure, e-communications	0.42	2.92	0.85	Confirmed
H 2B	Industry pressure, e- procurement	0.28	2.51	0.77	Confirmed
H 3	Customer pressure, e-communications	0.49	3.36	0.86	Confirmed
H 4A	E- communications, trust	0.28	4.25	0.89	Confirmed
H 4B	E- procurement, trust	0.75	7.34	0.98	Confirmed
H 5	Trust,commitment	0.42	2.78	0.84	Confirmed
H 6	Trust,perceived reciprocity	0.86	8.29	0.86	Confirmed
H 7	perceived reciprocity, commitment	0.49	3.26	0.85	Confirmed



11- Recommendations to the agency managers

1. Adoption of a strategic approach by senior managers of the agencies: Since moving forward to e-business should be considered a long-term process, one way to overcome the main challenges of implementing e-business in business, is adoption of a strategic approach by the agency managers to make fundamental changes.
2. Setting up a website, the agency managers can offer electronic services to the customers who demand for this type of services.
3. Agency managers can integrate the agency staff activities by creating an internal network (intranet).

4. Conclusion of a contract with finance and credit institutions for electronic transference of money by presenting payment tools such as credit cards to buy tickets from the agency.
5. Formation of a working group composed of professionals and experts in the field of electronic business to assess the readiness of partners (suppliers) to establish e-business.
6. Applying e-business to the suppliers of the agency, the agency managers can reduce the agency costs and thereby, increase the efficiency of the agency compared to the other competitors.
7. Organizing training courses and seminars on e-business, the agency managers can promote the agency staff's level of awareness of this type of business and its benefits for the agency.
8. Providing e-business manuals and distributing them among the agency's customers, the agency managers can introduce the advantages of this type of business to the customers and thereby, encourage the traditional customers who want a traditional and personal service to use the electrical services.
9. Publishing and sending books and journals and topics encouraging the use of e-business to the suppliers.
10. Considering the special benefits and discounts for the customers who are doing electronic procurement.

12- Recommendations to the future researchers

1. Future researchers can consider the other aspects and components of e-business which have not been investigated in the present study and obtain newer results.
2. Future researchers can compare the structural model of the present study in various service organizations (e.g. hotels) in order to evaluate its strengths and weaknesses to improve or modify the model to achieve a model proportional to the local community context.
3. Future researchers can add new variables (e.g. the variable of culture or electronic efficiency) to the model to assess the impact of these variables as well.
4. The present study has been conducted in Tehran; future researchers can conduct the research at the national level.
5. Future researchers can examine the relationship between using e-business and its productivity in the agencies.
6. Future researchers can use other models presented to assess the impact of e-business on business.

13- Research Restrictions

Undoubtedly, there are different types of barriers, limitations and problems during conducting any research. Especially in our country that unfortunately technical obstacles limitations in some cases occur due to mismanagement, and it decelerates the research process, hinders the achievement of actual and generalizable results and as a result, challenges the research process. The researcher has been neither an exception. Some of these restrictions are referred to as follows:

1. Lack of the researches conducted on the impact of e-business adoption on relational quality between supplier and buyer in service organizations.
2. Some managers and respondents' lack of cooperation with the researcher, which has been resolved through the researcher's repetitive follow ups.
3. Lack of quick and easy access to the managers, which has been resolved through spending time and repetitive visits.

14 - Conclusion

The present study intended to investigate the impact of electronic business on the quality of the relationships between travel agencies and their suppliers. The study contained seven hypotheses all of which were confirmed. From the management aspect, the survey showed that using Internet in communications (Electronic communications) increases the amount of electronic procurement. Due to the transient (non-storable) nature of tourism products, the adoption of electronic communication has a positive impact on the willingness of the travel agencies to use information technology for booking and selling tickets. Development of information technology not only provides the customers with a great power (such as purchasing online airline tickets ...), but also creates many opportunities for the agency. For example, one of the advantages of using Internet in the travel agencies is that the use of information technology enables the agency to establish and maintain lasting relationships with customers and provide their required services in the shortest possible time. This leads to an increase in the perceived benefits for the customer. In general, the study results show that the need to integrate new technologies in the relationships between travel agencies and their supply chain is not only due to the perceived pressure from the client, but also due to increase of competition in the tourism industry market. The study results are evidence confirming the positive effect of electronic communications on trust between agencies and their suppliers and trust also leads to the commitment to the supplier. In addition, the perceived reaction is the prerequisite for the commitment. Trust in the supplier has a positive effect on commitment. Commitment is one of the key components of the quality of relationships which enables the agency to build and maintain long-term relationships with the supplier.

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